MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ___ no X

Property Name: Cambridge Seaford Railroad Bridge No. 9.65 Inventory Number: CAR-367

Address: Crossing Marshyhope Creek Historic district: ___ yes X no

City: Federalsburg Zip Code: 21632 County: Caroline

USGS Quadrangle(s): Federalsburg

Property Owner: Maryland Transit Administration Tax Account ID Number: N/A

Tax Map Parcel Number(s): N/A Tax Map Number: N/A

Project: Repair work to the existing Cambridge Seaford Railroad Bridge Agency: Maryland Transit Administration

Agency Prepared By:

Preparer's Name: Joseph Schuchman Date Prepared: 6/20/2007

Documentation is presented in: A physical description of this resource may be found under Item 7, on the Maryland Inventory of Historic Properties Form prepared for Nridge No. 9.65; the significance of the resource is evaluated under Item 8.

Preparer's Eligibility Recommendation: ___ Eligibility recommended X Eligibility not recommended

Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property:

Inventory Number: Eligible: ___ yes Listed: ___ yes

Site visit by MHT Staff ___ yes X no Name: Date:

Description of Property and Justification: *(Please attach map and photo)*

Bridge 9.65 which carries the Cambridge- Seaford- Railroad across the Marshyhope Creek, is not eligible for listing in the National Register. Under Criterion A, while the resource is associated with growth and development brought to the eastern shore by the presence of the railroad, the resource is a representative and common place example of an early 20th century rail crossing. Under Criterion B, Bridge 9.65 is not associated with the lives of persons significant in our past. Under Criterion C, the bridge crossing is vernacular in execution, does not embody the distinctive characteristics of a type, period or method of construction and does not represent the work of a master or possess high artistic high artistic values. This determination has been made in accordance with the National Register Bulletin entitled "How to Apply the National Register Criteria for Evaluation" (National Park Service 1988).

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ___ **Eligibility not recommended** X

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments: not eligible individually, but may contribute to NR-eligible linear district comprising RR line; evaluation pending

John Talamo / 8/28/07
Reviewer, Office of Preservation Services **Date**

Ekuntz 8/28/07
Reviewer, National Register Program **Date**

200702954

Maryland Historical Trust Maryland Inventory of Historic Properties Form

Inventory No. CAR-367

1. Name of Property (indicate preferred name)

historic: Bridge No. 9.65, Cambridge- Seaford Railroad

other:

2. Location

street and number: Crossing Marshyhope Creek ___ not for publication

city, town: Federalsburg ___ vicinity

county: Caroline

3. Owner of Property (give names and mailing addresses of all owners)

name: Maryland Transit Administration

street and number: 6 St. Paul St telephone: (410)-539-5000

city, town: Baltimore state: Baltimore zip code: 21202-1614

4. Location of Legal Description

courthouse, registry of deeds, etc. N/A liber: folio:

city, town: tax map: tax parcel: tax ID number:

5. Primary Location of Additional Data

_____ Contributing Resource in National Register District
_____ Contributing Resource in Local Historic District
_____ Determined Eligible for the National Register/Maryland Register
__X__ Determined Ineligible for the National Register/Maryland Register
_____ Recorded by HABS/HAER
_____ Historic Structure Report or Research Report at MHT
_____ Other:_____

6. Classification

Category
_____district
_____building(s)
__X__structure
_____site
_____object

Ownership
__X__public
_____private
_____both

Current Function
_____agriculture
_____commerce/trade
_____defense
_____domestic
_____education
_____funerary
_____government
_____health care
_____industry
_____landscape
_____recreation/culture
_____religion
_____social
__X__transportation
_____work in progress
_____unknown
_____vacant/not in use
_____other:

Resource Count

	Contributing	Noncontributing	
	_____	_____	buildings
	_____	_____	sites
	_____	_____	structures
	_____	_____	objects
	_____	_____	Total

Number of Contributing Resources previously listed in the Inventory

_____

7. Description

Inventory No. CAR-367

Condition

___ excellent ___ deteriorated
X good ___ ruins
___ fair ___ altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

Physical Description

This railroad was originally constructed in 1868-1869 as the Dorchester & Delaware Railroad; by the time of the bridge's construction, the line operated as the Cambridge & Seaford Railroad, the name by which it has historically been known.

Railroad Bridge No. 9.65 carries the single track of the former Seaford & Cambridge Railroad over Marshyhope Creek in the Town of Federalsburg, Caroline County. Public parkland and open space immediately surrounds the bridge. The Town of Federalsburg is located on both the eastern and western sides of the bridge (Figure 1). The single-track bridge (Photographs 1-6) was constructed in 1910. With an overall length of 197 feet, the bridge is the longest of the line's seven rail crossings.

At least one earlier railroad bridge carried the track over Marshyhope Creek; no physical evidence of an earlier crossing survives and no information has yet come to light over the appearance of this earlier bridge. Historic Atlas Maps from 1897 (Figure 2), and 1905 (Figure 3) consistently illustrate a bridge at this location (Saulsbury, 1897; USGS, 1905).

The metal plate deck girder bridge is functional in appearance and is comprised of three simple spans with lengths of 62"-6" for Spans 1 and 2 and 63'-6" for Span 3. Girder bridges where the girders are located below the deck or roadway are termed deck girder bridges. Girder bridges in which the girders extend above the roadway level are through girders (Century: 182).

The superstructure for Spans 1 and 2 is comprised of two simply- supported, riveted steel plate girders spaced at 6'-6" on center while the superstructure for Span 3 consists of four simply – supported riveted steel plate girders spaced at 2'-6" on center. Transverse structural timber ties are spaced approximately 15" on center with every fourth tie extended to the north to support a 3'-4" wide longitudinal timber plank walkway and a 3'-0" high pipe railing. The walkway consists of five 2" by 8" timber planks. A 10" diameter steel gas main runs along the south side of the bridge and is supported by cantilevered angel brackets and steel straps connected to the south girder. The superstructure is supported by two solid concrete shaft piers and two concrete cantilever abutments. The east abutment presents a stepped back wall and wing wall which are parallel to the abutment; the west abutment is similar; however the northwest wing wall is skewed. The pier foundations are steel sheeting filled with concrete (Century: 182).

Girder Bridge Construction

Metal girder, or beam, bridges exemplify the modern application of traditional bridge technology. The metal girder bridge is essentially a structure in which a floor system and roadway (made of timber or concrete) are supported by girders, generally consisting of rolled sections of metal (of

various shapes, including "I" and "W") which are plain or encased in concrete. Girders are the members which span between the main supports of a structure (Spero: 103).

By 1861, major bridge components were manufactured of rolled iron, and by 1870 techniques of mass production were applied to the making of a variety of iron structural shapes, including beams or girders. The general design and manufacture of such iron components between 1860 and 1890 led to the construction of many iron girder spans throughout the United States, particularly on railroads. By 1895, however, wrought iron structural shapes were rapidly becoming unavailable as steel took its dominant place in girder bridge construction (Spero: 103).

Like their metal truss counterparts, the types of both iron and steel girder bridges developed in the nineteenth century may usefully be categorized by the relationship of the roadway, or deck, to the position of the girder or girders: deck girder, through girder, and half-through girder bridges. Plate girder spans are bridges in which the girders consist of built-up riveted sections with a deeper "web" between the top and bottom flanges of the girder. The plate girders may be placed beneath the bridge deck, in a deck girder configuration, or may rise above the level of the roadway, as in the half-through variant (Spero: 103).

Under the impetus of the railroads, metal girder bridge design and construction reached full development during the last quarter of the nineteenth century. By 1905, standard design plans and specifications for all types of girder bridges were available through such organizations as the American Railway Engineering Association, and the American Society of Civil Engineers, and such prominent private bridge building firms as the American Bridge Company (Spero: 104).

Plate girder bridges were typically riveted in the shop and shipped by rail to the intended sites. As in the case of metal trusses, the introduction of the portable pneumatic riveter allowed some early twentieth century plate girders to be riveted in the field, but many important shipment and construction considerations existed. Usually it is the difficulty of shipping very long plate-girders from bridge shop to site that determines the superior limit of such spans. One early 20th century observer noted:

> The loading of long girders on cars for shipment is quite an art, and it should be entrusted only to men experienced in such loadings; for, otherwise, the metal is liable to be injured in transit or the cars break down. . . . About as long a plate-girder as has ever been shipped in one piece was one of one hundred and thirty-two (132) feet. It required four flat cars to transport it. Longer plate-girder spans than this have been built, notably tubular bridges and swing spans, but they were shipped in parts and assembled at site. This expedient for simple spans is really permissible only in case of bridges to be sent to foreign countries, and it is to be avoided if possible even then, because it is sometimes difficult to obtain a

satisfactory job of field riveting when making the splices, although the use of pneumatic riveters tends to reduce materially the force of this objection" (Spero: 105, 109).

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century, including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station (Spero: 110) .

By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot, double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Spero: 110).

8. Significance

Inventory No. CAR-367

Period	Areas of Significance	Check and justify below		
__ 1600-1699	__ agriculture	__ economics	__ health/medicine	__ performing arts
__ 1700-1799	__ archeology	__ education	__ industry	__ philosophy
__ 1800-1899	__ architecture	__ engineering	__ invention	__ politics/government
X 1900-1999	__ art	__ entertainment/ recreation	__ landscape architecture	__ religion
__ 2000-	__ commerce	__ ethnic heritage	__ law	__ science
	__ communications	__ exploration/ settlement	__ literature	X social history
	__ community planning		__ maritime history	X transportation
	__ conservation		__ military	__ other:____

Specific dates 1910 **Architect/Builder** Cambridge- Seaford Railroad
Pennsylvania Railroad

Construction dates 1910

Evaluation for:

__X__ National Register _____Maryland Register _____not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, followed by a narrative discussion of the history of the resource and its context. (For compliance projects, complete evaluation on a DOE Form – see manual.)

The Dorchester & Delaware Railroad was chartered in Maryland on February 6, 1866 and in Delaware on January 30, 1867. Its objective was to link Cambridge, Maryland with the Delaware Railroad at Seaford, Delaware. Cambridge, with a population of about 2,500 was at that time the largest city on Maryland's Eastern Shore. Construction on the Dorchester & Delaware began in April, 1868 (Hayman: 47, 50).

On Tuesday October 26, 1869, the Dorchester and Delaware Railroad was completed to the depot at Cambridge, Maryland thus linking the "jewel of the Choptank" with Seaford, Delaware. The 33-mile line was built at a cost of $300,000 and was described as the "greatest internal improvement ever conceived, planned and executed in this county." October 30, 1869, the Dorchester County News reported "all along the tracks of this road are rich farming lands, lands that have been increased a hundred percent in value by the building of the road; and now that it has reached Cambridge, lands for ten miles around will increase a hundred percent in value in the next ten years."

The present bridge crosses Marshyhope Creek in Federalsburg, the site of at least one earlier crossing. Recollections of a July 4. 1870 excursion identified Federalsburg as "a town of 700 citizens who, with the completion of the railroad, are contemplating better days and a new order of things."

> "The inhabitants along this part of the route are considerably excited over the appearance of the 'iron horse' and crowds collect at every stopping place....Federalsburg is the center of a brisk trade in ship timber which is sent to Baltimore and Philadelphia. The firm of Goslin, Brother and Son is shipping over a quarter a million feet a year. With an abundance of excellent timber, Federalsburg has a boatbuilding industry of its own and several very large lighters have been built in recent years to be used in northern waters."

From its earliest days of operation, the Dorchester & Delaware Railroad enjoyed a "very brisk and steadily growing business" no doubt spurred on by the substantial outbound traffic of agricultural products, timber and sea food.

The Philadelphia, Wilmington & Baltimore Railroad (P., W. & B), a division of the Pennsylvania Railroad, acquired a controlling interest in the railroad on June 1, 1883; the rail line was reorganized as the Cambridge & Seaford Railroad (Haman: 50).

The Delaware Railroad was incorporated under authority of special acts of the States of Delaware and Maryland, April 13, 1887, and May 3, 1882, respectively. An agreement dated December 31, 1898, consolidated four Eastern Shore railroads: the Delaware Railroad Company, the Queen Anne's and Kent Railroad Company, as reorganized, the Delaware and Chesapeake Railway and the Cambridge and Seaford Rail Road Company (http://broadway.pennsyrr.com/rail/Prr/Corphist/drrhist.html).

Historic maps spanning the years 1884 to 1911 (Figures 2-5) and an 1884 passenger schedule (Figure 6) suggests the railroad operated alternately as the Cambridge & Seaford Railroad and the Delaware Railroad although a 1911 map, titled Pennsylvania Railroad and its Connections (Figure 7), identified the line as the Cambridge Railroad, Delaware Division.

The present bridge crossing was constructed in 1910 and may have been a component of overall infrastructure improvements. The name given to the bridge reflects the name under which the rail line operated at the time this crossing was built. Surviving elements of the rail corridor suggest the bridge's construction was likely part of overall bridge improvements to this single track system. Of the seven bridges which support the rail line (two in Delaware and five in Maryland), five were constructed between the years 1900 and 1915. Speculative reasons for construction may include increased usage of the line, increased tonnage of rail locomotives and equipment, and/or modifications necessitated by nearby track realignment. There is no visible evidence of the former bridge at this location.

On February 1, 1968, the PRR merged with arch-rival New York Central to form the Penn Central Railroad. Penn Central declared bankruptcy in June 1970 and in April 1976 Consolidated Rail Corporation, (popularly identified as Conrail) was created by the United States Congress to assume control of the major Northeast railroad companies, all of which were financially failing (http://en.wikipedia.org/wiki/Pennsylvania_Railroad; http://en.wikipedia.org/wiki/Conrail).

The Final System Plan which created Conrail in 1976 omitted Delmarva Peninsula rail lines which included the primary mainline between Wilmington, Delaware and Pocomoke, Maryland and several smaller branch lines, among which was the Cambridge- Seaford Railroad (http://www.mdde.com/).

These Delmarva lines were slated to be abandoned. However, politicians from the states of Maryland and Delaware contracted with Conrail to operate these struggling branches as a subsidized "designated operator" with ownership retained by Penn Central. After one year of operation the expense of subsidizing these lines at Conrail's high cost led the state governments to seek a lower cost short line as a "designated operator." In August 1977, as the Conrail startup was still in full swing, the Maryland and Delaware Railroad Company (MDDE) was created. Soon after its organization, the firm was selected as the "designated operator" of three branches in its namesake states under contract with the Maryland Department of Transportation (http://www.mdde.com/).

The MDDE line originally included the Cambridge-Seaford Line, the now abandoned route between Clayton, Delaware and Easton, Maryland and the Chestertown-Centreville Line runs between the Conrail interchange in Townsend, Delaware and Massey, Maryland, at which point that rail line divides into two branches, one to Chestertown and the second to Centreville. The Maryland portion of these lines was subsequently purchased by the State of Maryland (http://www.mdde.com/).

Currently, the MDDE operates over 120 miles of track throughout the States of Maryland and Delaware. The company is operated out of the restored Federalsburg Station MD which is located approximately 1,000 feet west of Bridge No. 9.65 (http://www.mdde.com/).

9. Major Bibliographical References

Inventory No. CAR-367

Publications:

Century Engineering Inc. and Sabra, Wang and Associates, *Comprehensive Structural Inspection of Aerial Structures and Bridges, Massey/Centerville Freight Rail Line 148, Massey/Chestertown Freight Rail Line 149, Seaford/Cambridge Freight Line 168.* Unpublished document prepared for the Maryland Department of Transportation, June, 2006

Hayman, John C., Rails *Along the Chesapeake, A History of Railroading on the Delmarva Peninsula, 1827-1978* ((Marvadel Publishers, 1979)

Orem, Reginald C., "D & D Locomotive Sounded Call for New Enterprise." The Banner, July 16, 1976 Page 11-D from Railroads – Eastern Shore file, Talbot County Public Library

Spero, P.A. C & Company and Berger, Louis & Associates, *Historic Highway Bridges in Maryland: 1631-1960*: Historic Context Report, unpublished document prepared for the Maryland State Highway Administration, 1995

Maps

Map of the Pennsylvania Railroad Company's Lines East of Pittsburgh and Erie, Dated July 1, 1899

Philadelphia, Wilmington & Baltimore Railroad System, 1881; New York P & N Railroad, 1884

Pennsylvania Railroad and its Connections, December 1, 1911

Saulsbury, M. L. *Map of Caroline County* (Ridgely, Maryland: 1897)

United States Depart of Interior Geological Survey, Hurlock Maryland, 1905

10. Geographical Data

Acreage of surveyed property	N/A		
Acreage of historical setting	N/A		
Quadrangle name	Federalsburg, MD	Quadrangle scale:	1:24 000

Verbal boundary description and justification

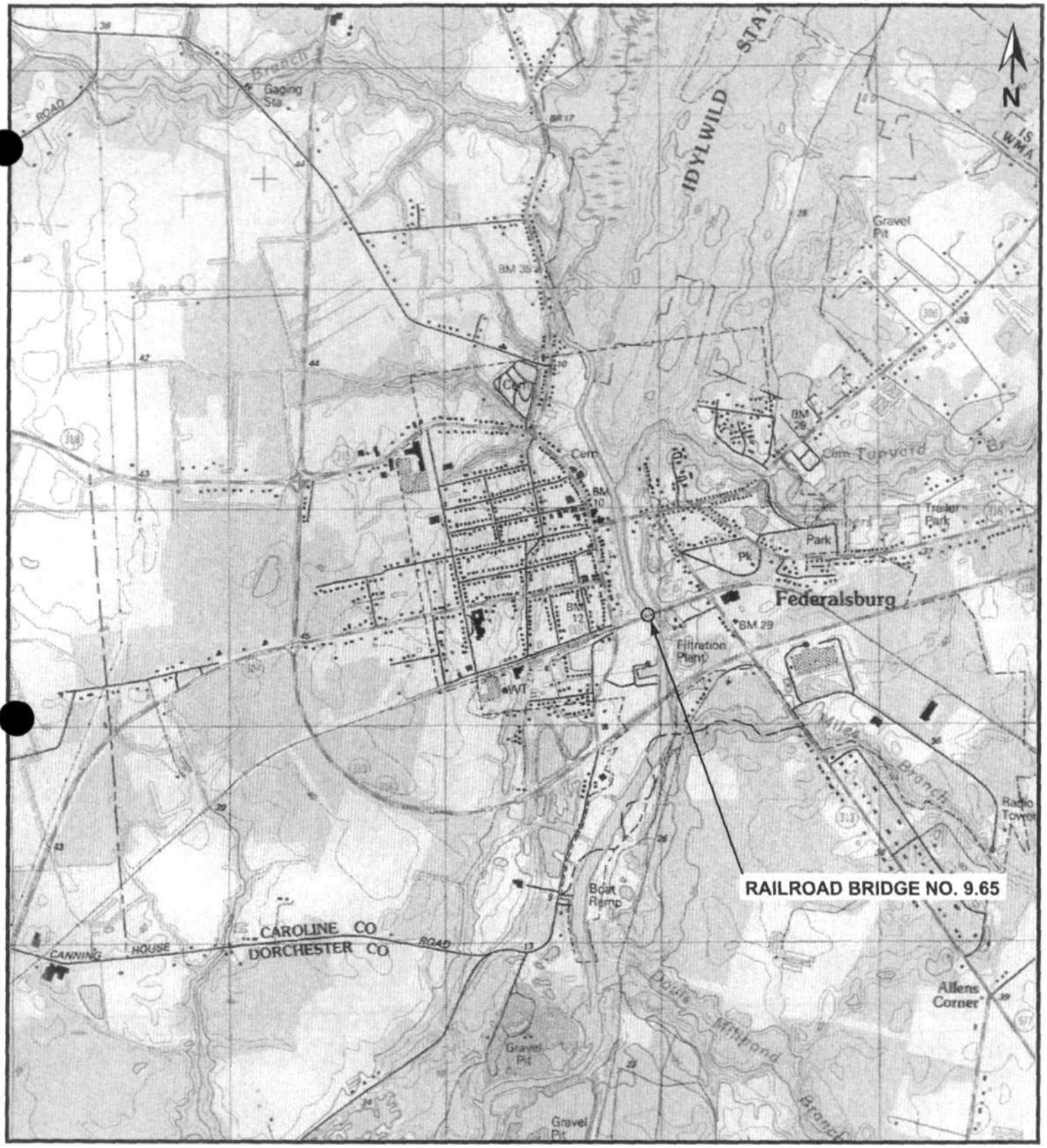
Railroad bridge spanning Marshyhope Creek and associated abutments and wing walls.

11. Form Prepared by

name/title	Joseph Schuchman		
organization	STV Inc	date	June 20, 2007
street & number	7125 Ambassador Road, Suite 200	telephone	(410) 944-9112
city or town	Baltimore	state	MD 21244-2708

return to: Maryland Historical Trust
Maryland Department of Planning
100 Community Place
Crownsville, MD 21032-2023
410-514-7600

CAR-367



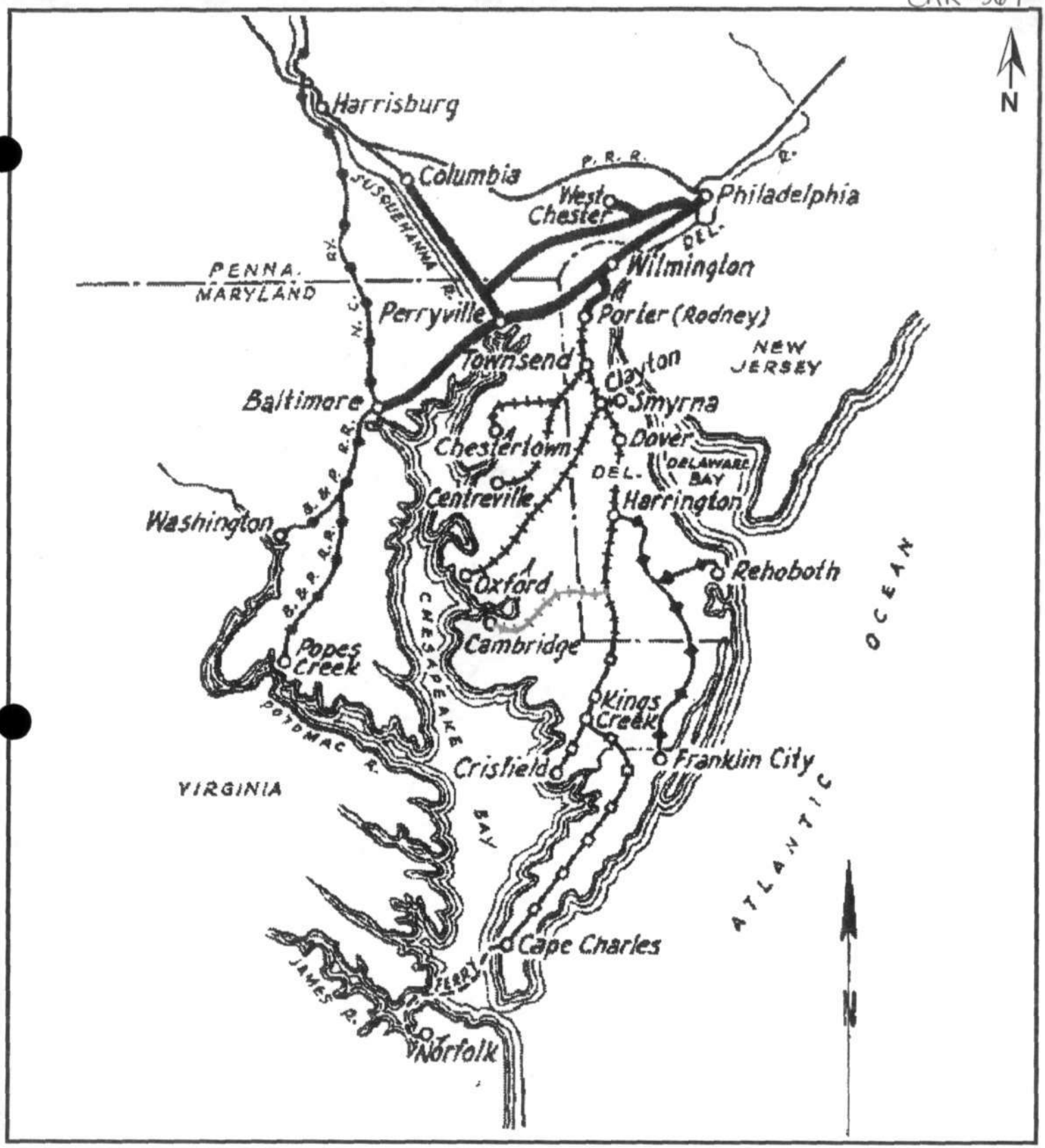
SCALE: 1" = 2,000'

0 1,000 2,000

REFERENCE: United States Department of Interior Geological Survey Federalsburg, MD (1988)

FIGURE 1
PROJECT LOCATION MAP
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

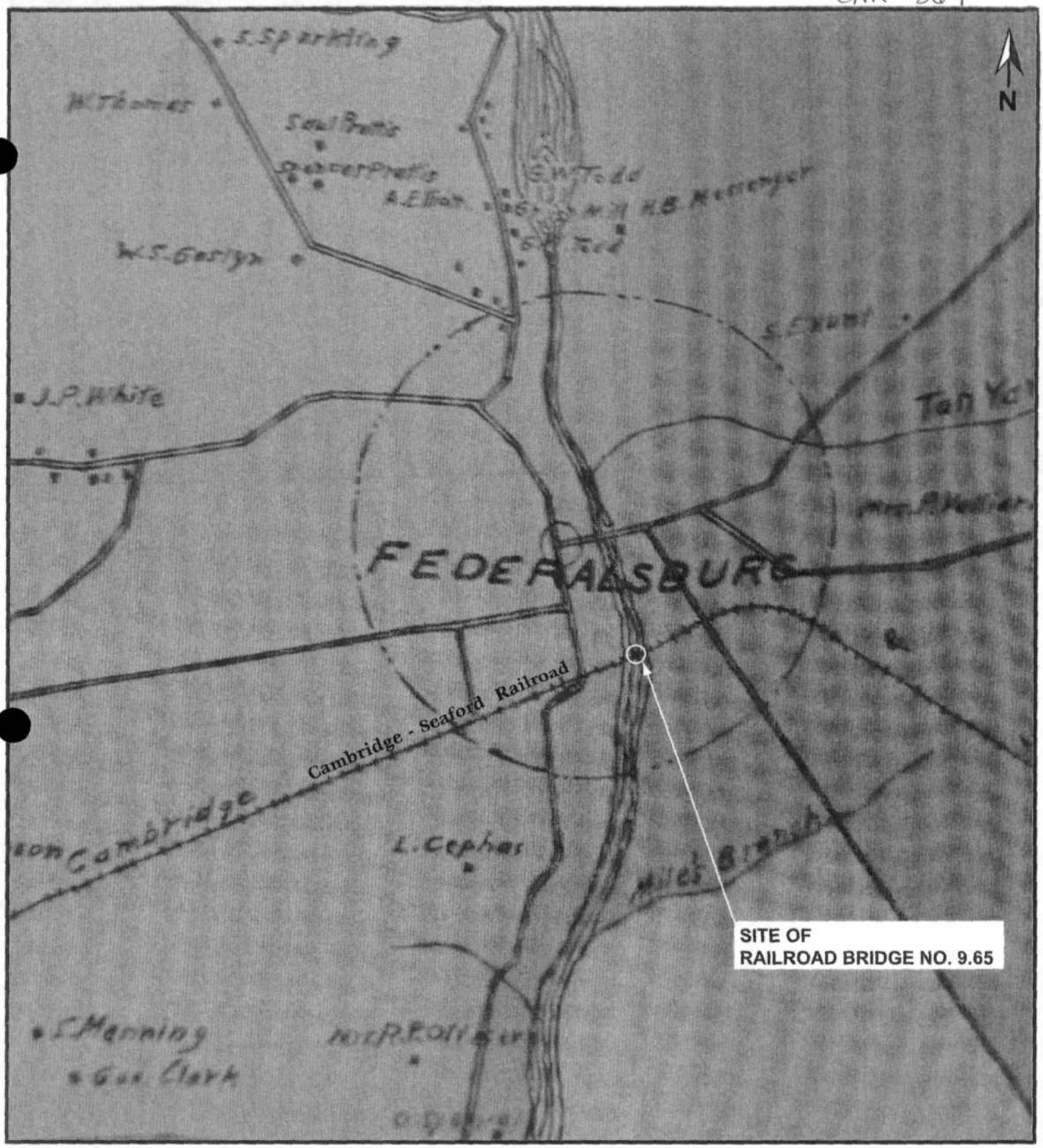
CAR-367



REFERENCE: Philadelphia, Wilmington & Baltimore Railroad System, 1881
New York P&N Railroad, 1884

FIGURE 2
CAMBRIDGE-SEAFORD RAILROAD - 1881
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367

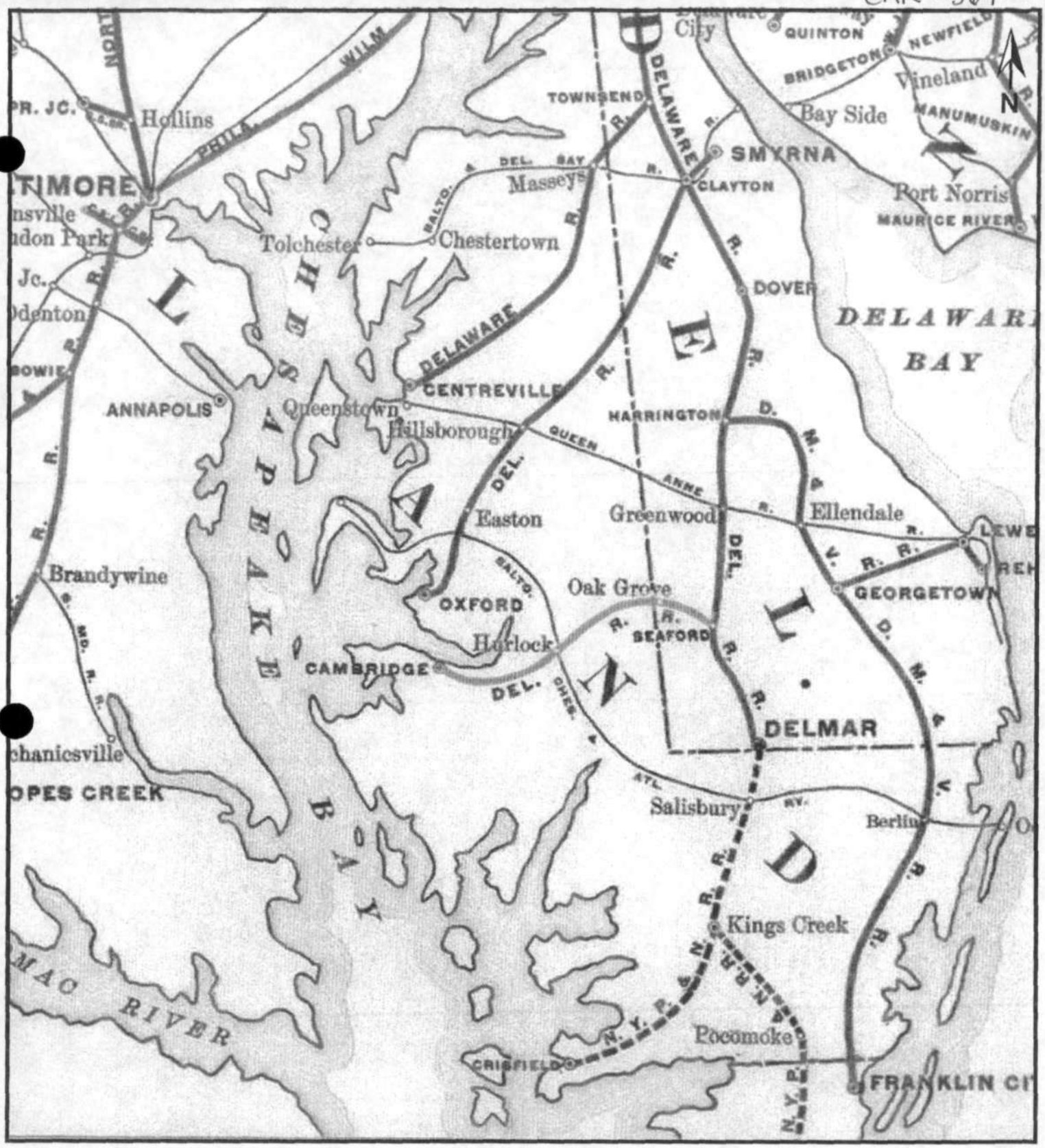


SCALE UNKNOWN

REFERENCE: Map of Caroline County (Ridgely, Maryland: M.L. Saulsbury, 1897

FIGURE 3
SITE OF RAILROAD BRIDGE #9.65 CROSSING THE MARSHYHOPE CREEK - 1897
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367



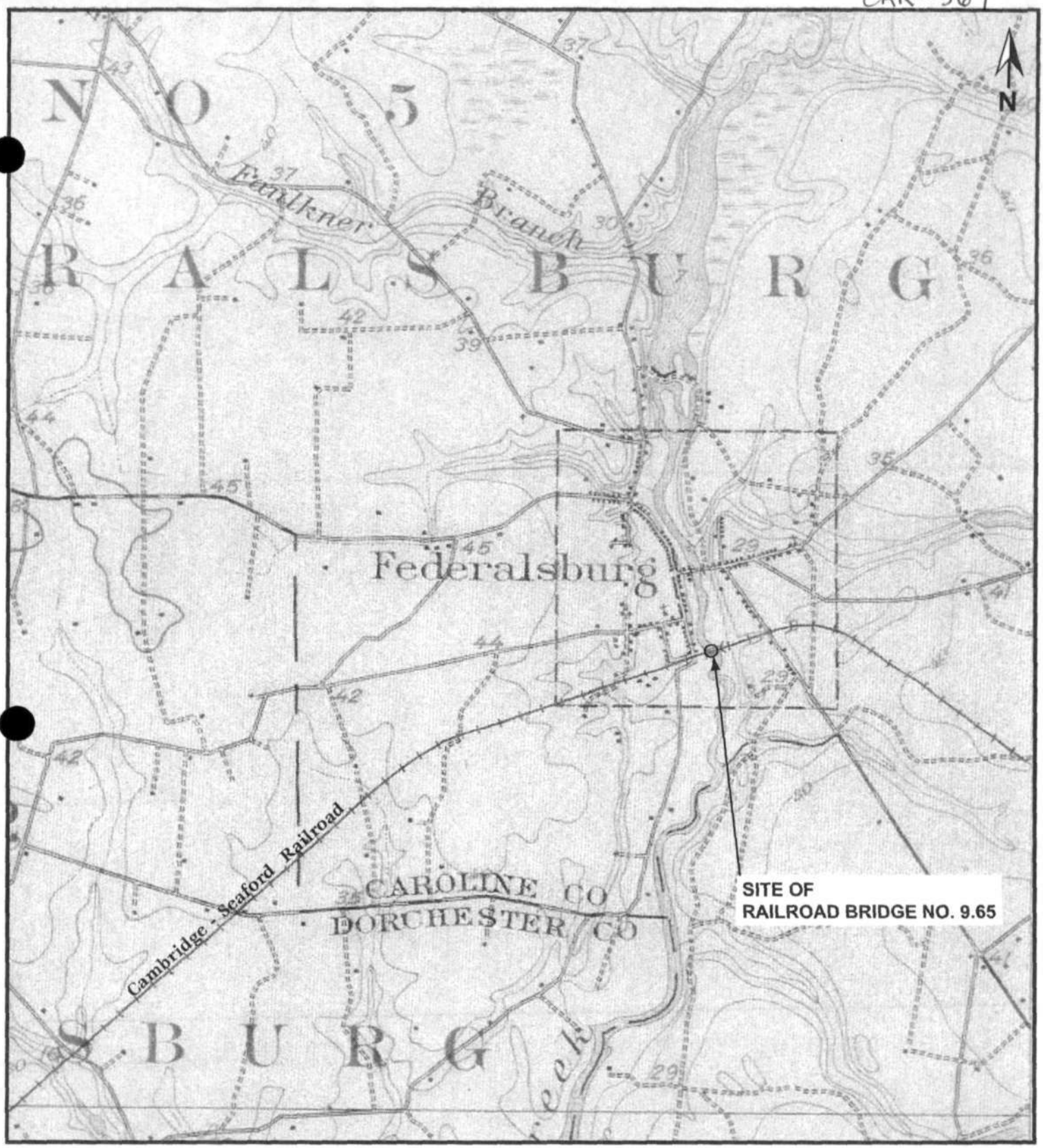
SCALE: 1" = 15 miles

0 7.5 15

REFERENCE: Map of Pennsylvania Railroad Company's Lines East of Pittsburgh and Erie, Dated July 1, 1899
Courtesy of RU Special Collections
http://mapmaker.rutgers.edu

FIGURE 4
DELAWARE RAILROAD - 1899
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367

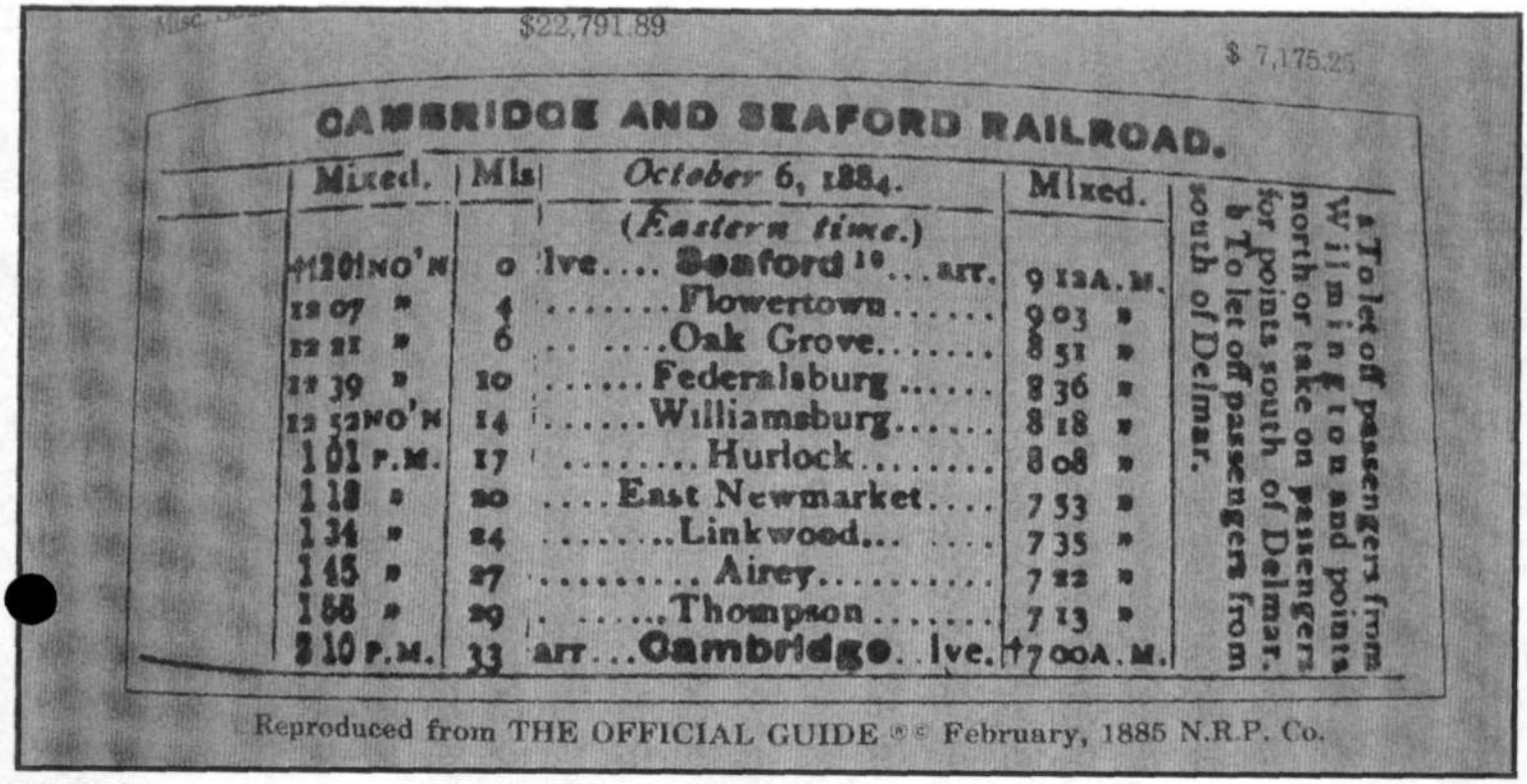


SCALE UNKNOWN

REFERENCE: United States Department of Interior Geological Survey
Hurlock, MD (1905)

FIGURE 5
SITE OF RAILROAD BRIDGE NO.9.65 CROSSING THE MARSHYHOPE CREEK - 1905
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367



$22,791.89

$ 7,175.25

CAMBRIDGE AND SEAFORD RAILROAD.

Mixed.	Mls	October 6, 1884. (Eastern time.)	Mixed.
†12 01 NO'N	0	lve.... Seaford [10] ...art.	9 12 A.M.
12 07 "	4	.....Flowertown.....	9 03 "
12 21 "	6	.....Oak Grove.....	8 51 "
12 39 "	10	.....Federalsburg.....	8 36 "
12 52 NO'N	14	.....Williamsburg.....	8 18 "
1 01 P.M.	17	.....Hurlock.....	8 08 "
1 18 "	20	....East Newmarket....	7 53 "
1 34 "	24	.....Linkwood.....	7 35 "
1 45 "	27	.....Airey.....	7 22 "
1 55 "	29	.....Thompson.....	7 13 "
‡ 10 P.M.	33	art...Cambridge. lve.	†7 00 A.M.

a To let off passengers from Wilmington and points north or take on passengers for points south of Delmar.
b To let off passengers from south of Delmar.

Reproduced from THE OFFICIAL GUIDE ®© February, 1885 N.R.P. Co.

NO SCALE

REFERENCE: Cambridge & Seaford Railroad Passenger Schedule dated October 6, 1884

FIGURE 6
PASSENGER SCHEDULE - 1884
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367

NO SCALE PROVIDED

REFERENCE: Pennsylvania Railroad and its Connections, Dated December 1, 1911
http://mapmaker.rutgers.edu, Courtesy of RU Special Collections

FIGURE 7
CAMBRIDGE RAILROAD, DELAWARE DIVISION - 1911
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM
CAMBRIDGE-SEAFORD RAILROAD BRIDGE #9.65

CAR-367

MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM

Cambridge-Seaford Railroad Bridge #9.65

PHOTOGRAPH 1

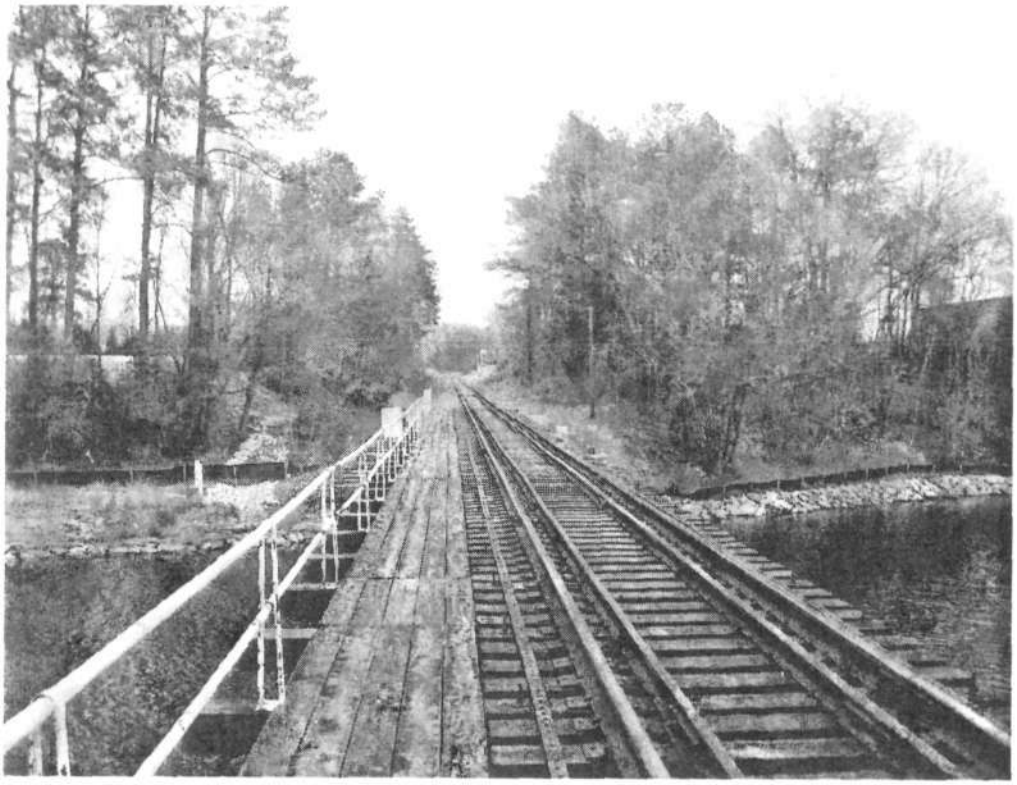
View looking east-northeast toward Railroad Bridge No. 9.65 (April 2007).

PHOTOGRAPH 2

View looking east-southeast toward Railroad Bridge No. 9.65 (April 2007).

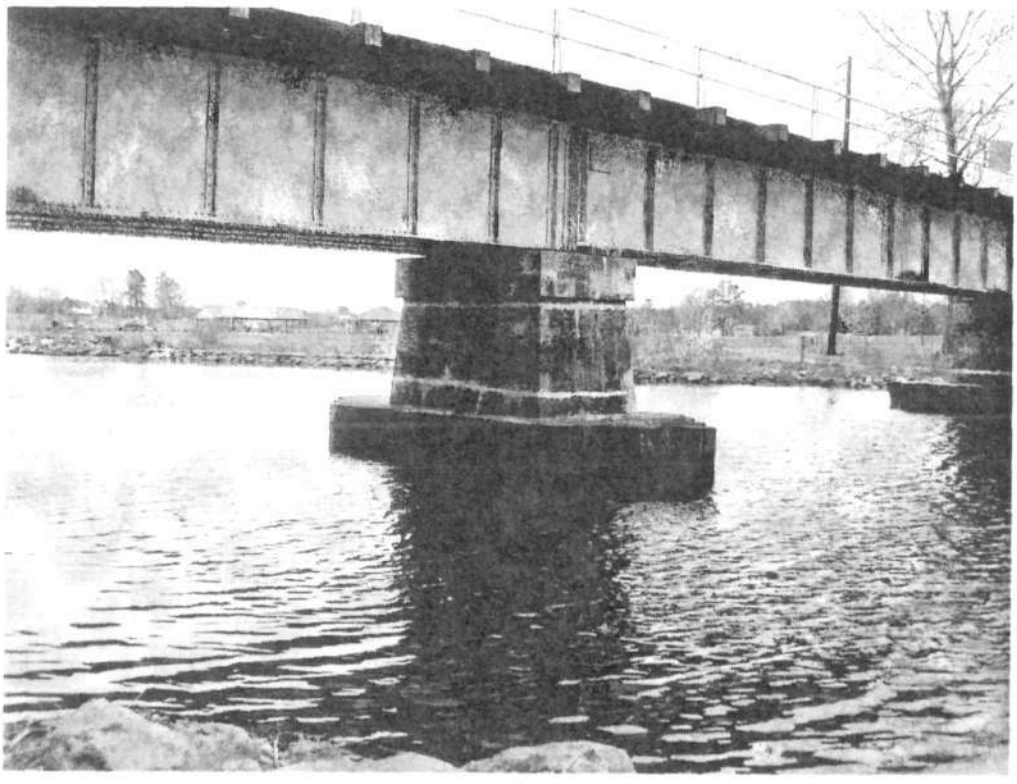
MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM

Cambridge-Seaford Railroad Bridge #9.65



PHOTOGRAPH 3

View looking east toward the rail crossing and walkway of Railroad Bridge No. 9.65 (April 2007).

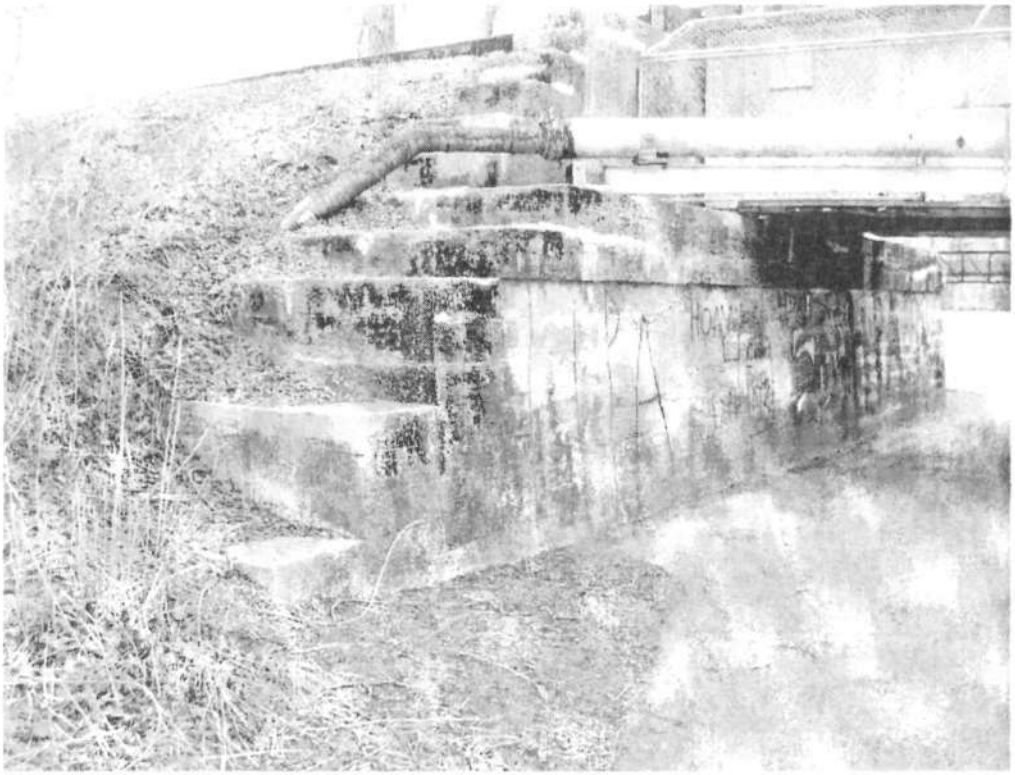


PHOTOGRAPH 4

View looking southwest toward the bridge substructure and pier detail, Railroad Bridge No. 9.65 (April 2007).

MARYLAND INVENTORY OF HISTORIC PROPERTIES FORM

Cambridge-Seaford Railroad Bridge #9.65



PHOTOGRAPH 5

View looking north toward the west abutment and wing wall of Railroad Bridge No. 9.65 (April 2007).

PHOTOGRAPH 6

View looking south-southeast toward the east abutment and wing wall of Railroad Bridge No. 9.65 (April 2007).